

Extension of breeding activity for Rodrigues Warbler *Acrocephalus rodericanus*

Dave A. Showler

La Rousserolle de Rodrigues *Acrocephalus rodericanus*, espèce menacée, est endémique à Rodrigues, une des îles formant l'archipel des Mascareignes, située dans le sud de l'Océan Indien. Un juvénile, observé pendant qu'il était nourri par un adulte, le 30 avril 1999, était estimé avoir quitté le nid moins de cinq jours auparavant. Ceci est de 6 à 8 semaines plus tard que les dates d'envol constatées auparavant. Il est possible que la saison de nidification soit plus tardive pendant certaines années ou qu'il y ait plus d'une nidification par an, selon les conditions météorologiques ou l'abondance de nourriture.

The Endangered Rodrigues Warbler *Acrocephalus rodericanus* is endemic to the Indian Ocean island of Rodrigues. A juvenile Rodrigues Warbler observed being fed by an adult in woodland at St Gabriel (central Rodrigues), on 30 April 1999, was estimated to be fewer than five days out of the nest. Its bill length was approximately three-quarters that of the adult feeding it, it had obvious gape flanges, some down on the lower throat and the tail was c25 mm long. This is 6–8 weeks later than any previously observed fledging date. The fledging period of Rodrigues Warbler is unknown, but is probably c14 days¹. The fledging period of its slightly larger congener, Seychelles Warbler *A. sechellensis* is 18–20 days³. Backdating indicates that the bird hatched some time during the second week of April. The incubation period of Rodrigues Warbler is also unknown, but Seychelles Warbler incubates for 18 days³. On this basis, the egg-laying date would have been c25 March, at the start of the Southern Hemisphere winter. It is possible that in some years the breeding season may be extended or breeding may occur more than once per annum, eg a pair of warblers nested twice in the 1974–75 season and two broods is perhaps the norm¹.

Breeding activity is presumably linked to weather conditions and food availability. Examples can be drawn from the findings of extensive research into the breeding biology of Seychelles Warbler. On its native island of Cousin, where food availability varies seasonally, Diamond² found that the species bred twice in most years (once in the wet and once in the dry season), apparently using rainfall frequency to predict peak abundance in insect food. Further, Komdeur³ was able to test the hypothesis that seasonal changes in feeding conditions are an important proximate factor controlling reproduction, following translocation of some pairs (as a conservation measure) to Aride, an island with high year-round food availability. Here, birds prolonged their reproductive season, increased the annual number of broods and

annual production per pair was, on average, far higher than that of the same pair prior to translocation³.

On Rodrigues, in addition to the warbler, winter-breeding of Rodrigues Fody *Foudia flavicans*, the only other extant endemic bird, has also been observed¹. Interestingly, winter breeding is almost unknown for passerines on the two more westerly Mascarene islands, Mauritius and Réunion, where nesting seasons are well known (R Safford pers comm 2001). Cheke (pers comm 2001) suggests that winter breeding is an adaptation to the much less predictable weather/precipitation patterns in Rodrigues, when it would be an advantage to be able to make effective use of unseasonal rainfall, as the main rainy season often does not arrive. Further ecological studies on Rodrigues are required to examine the reproductive strategies and breeding success of both of the endemic passerines.

Acknowledgements

Many thanks to Anthony Cheke for his thoughts on the winter breeding of the two endemic passerines on Rodrigues, and Roger Safford for comments on the draft manuscript.

References

1. Cheke, A.S. 1987. Observations on the surviving endemic birds of Rodrigues. In: Diamond, A.W. (ed) *Studies of Mascarene Island Birds*. Cambridge, UK: Cambridge University Press.
2. Diamond, A.W. 1980. Seasonality, population structure and breeding ecology of the Seychelles Brush Warbler *Acrocephalus sechellensis*. *Proc. V Pan-Afr. Orn. Congr.*: 253–266.
3. Komdeur, J. 1996. Seasonal timing of reproduction in a tropical bird, the Seychelles Warbler: a field experiment using translocation. *J. Biol. Rhythms* 11: 333–346.

E-mail: dashowler@hotmail.com.